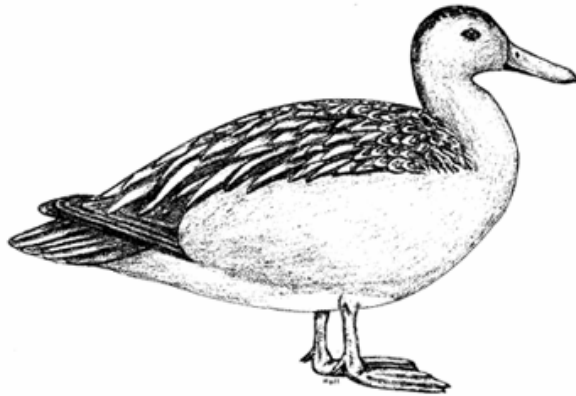


**Species Notes for
Cinnamon Teal (*Anas cyanoptera*):**

**California Wildlife Habitat Relationships (CWHR) System
Level II Model Prototype**



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PREFACE

This document is part of the California Wildlife Habitat Relationships (CWHR) System, operated and maintained by the California Department of Fish and Game (CDFG) in cooperation with the California Interagency Wildlife Task Group (CIWTG). The information will be useful for environmental assessments and wildlife habitat management. For more information on the CWHR System and all of its components, please see <http://www.dfg.ca.gov/biogeodata/cwhr/>.

Notes such as these were prepared for 32 species by the US Forest Service Pacific Southwest Research Station as part of a 2000/2001 contract with CDFG. Each is part of a prototypical “Level II” model for a species. As compared with the “Level I” or matrix models initially available in the CWHR System, “Level II” models incorporate spatial issues such as size of a habitat patch and distance between suitable habitat patches.

The notes are divided into three major sections. First, “Distribution, Seasonality and Habitats” represents information in the existing Geographic Information System (GIS) range data and in the Level I matrix model for a species. There is a vector-based GIS layer of geographic range and seasonality for each species in CWHR as well as a matrix containing all suitability ratings – High (H), Medium (M), Low (L) or Unsuitable (-) – by habitat (e.g. BOW or Blue Oak Woodland), stage (e.g. 4P or small tree, open canopy) and life requisite (reproduction, cover, or feeding.). Tools such as “Bioview” within the CWHR software will return these suitability ratings for a species to a user-supplied data set containing habitats and either stages (e.g. 4P) or stage values (e.g. trees of 16.0 average diameter at breast height in a stand of 30% canopy closure).

Second, “Required Attributes of Suitable Habitat Patches” represents spatially-explicit requirements of a species. The information here builds upon what is known about habitat patch size and the most critical attributes of a habitat patch needed by an individual of the species. Applications such as “GRABS”, which stands for “Grouping Resources Algorithm for Biological Data Sets”, will “clump” pixels of a user-supplied raster-based GIS data set representing patches of a suitable habitat and stage for a species. It will calculate area, perimeter, and complexity within each patch and analyze its outside edge for juxtaposition with other habitats and stages of interest. Many of the attributes are what were once called “elements” in the CWHR model.

Third, “Spatial Habitat Requirements for Persistence of Population” represents estimates of the amount of habitat needed to maintain a population of a species. This may be considered the starting point for a “Level III” CWHR model, which would take into account spatial issues as well as a number of population parameters not yet incorporated into CWHR. Such information is included for most, but not all, Level II-modeled species.

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Distribution, Seasonality and Habitats

<i>Model Parameter</i>	<i>Threshold Value(s) for Species</i>
<u>Biogeographic Range and Seasonality</u> range of the species, by season, in the state	Species migrates in a general north to south direction with some populations remaining in California during the winter (but outside of the colder areas) and some moving to Mexican wintering grounds. Species is found yearlong in portions of the Central Valley and central and south coast. In areas east of the Cascades and Sierra Nevada, it is abundant during spring and fall migrations and fairly common during summer but rare during winter.
<u>Suitable Habitats</u> habitats rated in the California Wildlife Habitat Relationships (CWHR) System as high (H), medium (M), or low (L) suitability for reproduction, cover, or feeding	Species finds suitability (H --->L) for reproduction, cover and/or feeding in some or all stages of: Annual Grassland, Estuarine, Fresh Emergent Wetland, Irrigated Grain Crops, Irrigated Hayfield, Lacustrine, Perennial Grassland, Rice, Riverine, Saline Emergent Wetland, Valley Foothill Riparian, and Wet Meadow.
<u>Water</u> whether water is required, enhances, or is irrelevant for habitat suitability	Water is essential for suitability. For feeding, water must be relatively shallow, as species is a tipper rather than a diver. Most kinds of water are suitable, including vernal pools, ponds, permanent streams, lakes, rivers, slow-moving water and created bodies of water. Water is also required for reproduction, although nests are away from water.

Required Attributes of Suitable Habitat Patches

<i>Model Parameter</i>	<i>Threshold Value(s) for Species</i>
<u>Patch Size</u> L = low suitability. This is the minimum patch size for persistence of an individual. H = high suitability. Above this patch size, area alone does not increase habitat suitability for an individual.	Terrestrial - with grasses and forbs less than 60 centimeters high 2 acres (L) including water edge 20 acres (H) including water edge Or Shallow water – adjacent to herbaceous habitat 2 acres (L)

	25 acres (H)
<u>Edges</u> requirements for a transition between two life form types – tree/shrub, tree/grass, tree/water, tree/agricultural, shrub/grass, shrub/water, shrub/agricultural, grass/water, grass/agricultural, or water/agricultural	A grass/water edge is preferred. Dense herbaceous growth for nesting and escape cover must be in close proximity to water (within about 30 meters). Depending on predator, species achieves cover in terrestrial herbaceous or aquatic emergent vegetation.
<u>Structural Habitat Attributes</u> requirements for live vegetation, dead or decadent vegetation, vegetation residues, physical features, or human-made features	Species needs a mixture of layers especially of shrubs and herbs less than 60 centimeters in height. An herbaceous layer is essential for feeding and cover.
<u>Food</u> vegetative or animal diet requirements	Forbs, graminoids, seeds and emergent aquatic plants are essential. Species also eats submerged aquatic plants and invertebrates.